



# Series "YEF"







## Post-Yield Strain Gauge



**Compatible adhesive & Operational temperature**  
 CN: -20~ +80°C  
 CN-Y: -20~ +80°C  
**Strain limit in room-temperature** 10~ 15%

Operational temperature -20~+80°C

### LARGE STRAIN MEASUREMENT

Gauge pattern		Type	Gauge size		Backing		Resistance
			L	W	L	W	in Ω
<p>This gauge is designed for measurement of large strain up to 10 to 15%. Also it is durable to the measurement of repeated strain in elastic range (at strain level <math>\pm 1500 \times 10^{-6}</math>) like as ordinary strain gauge. However it is not applicable to the measurement of repeated strain in large range. The CN-Y is recommended as an adhesive if the measurement is made after a few days or longer of strain gauge bonding. Large strain measurement is possible even after one year of bonding the gauge with the CN-Y adhesive. (Provided that the specimen is stored in room temperature.)</p> <p>●Single-element (G.F. 2.1 approx.)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <b>YEFLA-2</b> </div> <div style="text-align: center;">   <b>YEFLA-5</b> </div> </div> <p>●90° 2-element Cross (G.F. 2.1 approx.) Plane type</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <b>YEFLA-2</b> </div> <div style="text-align: center;">   <b>YEFLA-5</b> </div> </div> <p>●45° /90° 3-element Rosette (G.F. 2.1 approx.) Plane type</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <b>YEFRA-2</b> </div> <div style="text-align: center;">   <b>YEFRA-5</b> </div> </div>			L : length W : width (Unit : mm)				
Single-element	YEFLA-2	2	1.8	7.5	4.0	120	
	YEFLA-5	5	2.0	12.0	4.0	120	
90° 2-element Cross, Plane type	YEFLA-2	2	1.8	10.0	10.0	120	
	YEFLA-5	5	2.0	14.5	14.5	120	
45° /90° 3-element Rosette, Plane type	YEFRA-2	2	1.8	10.0	10.0	120	
	YEFRA-5	5	2.0	14.5	14.5	120	

Each package contains 10 gauges.

### Leadwire-integrated YEF series (made-to-order)

Lead wires	Operational temperature range	Gauge type examples	Colors of Lead wire
2-wire Parallel vinyl wire	-20~+80°C	L : YEFLA-2-3L	Grey
3-wire Parallel vinyl wire	-20~+80°C	LT: YEFLA-2-3LT	Blue (independent)

## Info

### ●YUF/YEF/YF/F applications

Gauge series	Strain limit	Fatigue limit at room temperature	Change of apparent strain due to cyclic loading of large strains
YUF	20~30% elongation	Not applicable	Not applicable
YEF	10~15% elongation	$5 \times 10^5$ cycles	$2000 \times 10^{-6}$ strain/10 cycles
YF	15~20% elongation	$1 \times 10^2$ cycles	$2000 \times 10^{-6}$ strain/10 cycles
F	3%	$1 \times 10^6$ cycles	$400 \times 10^{-6}$ strain/10 cycles

Fatigue limit : Cyclic loading with  $\pm 1500 \times 10^{-6}$  strain, 15Hz, Apparent strains exceeding  $100 \times 10^{-6}$  strain  
Large strain :  $\pm 10000 \times 10^{-6}$  strain, 4 min./cycle,  
Please note that YEF and YF series can not be used for cyclic large strain measurement.

### ALTHERIS bv

Scheveningseweg 15  
2517 KS DEN HAAG  
The Netherlands

+31 (0)70 3924421

+31 (0)70 3644249

Offices in : Benelux | Germany | France | UK | Italy | USA

[www.altheris.com](http://www.altheris.com)

[sales@altheris.nl](mailto:sales@altheris.nl)

LEADERS IN SENSORS & HEAVY DUTY JOYSTICKS

**ALTHERIS**  
SENSORS & CONTROLS